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SUMMARY OF DATA ON POTASSIUM SORBATE

<sup>①</sup>  
Abstract. Potassium sorbate, a widely used preservative in foods, is used in the tobacco industry as a preservative to extend the shelf life of tobacco. Commercial cigarettes to which potassium sorbate has been added may contain 0.23 mg of potassium sorbate. This is much less than 0.01% of the cigarette by weight, and is also far lower than the amount of potassium sorbate consumers are exposed to in foods. Potassium sorbate is approved for cigarette use in Great Britain, at levels up to 0.5%, and in Germany.

<sup>②</sup> Research comparing cigarette smoke condensate from reference cigarettes with condensate from cigarettes containing 1.5, 3, or 6 times the amount of potassium sorbate used in a typical commercial cigarette has indicated that the addition of potassium sorbate does not affect the biological activity of the condensate. Studies also suggest that the levels of potassium sorbate used in cigarettes present no risk to humans. Potassium sorbate has virtually no toxic effects except at levels thousands of times larger than smokers encounter, and studies have not shown potassium sorbate to be carcinogenic, mutagenic, or teratogenic.

Background. Potassium sorbate ( $\text{CH}_3\text{CH}=\text{CHCH}=\text{CHCOOK}$ ; CAS No. 590-00-1), also known as potassium trans, trans-2,4-hexadienoate, is a white fluffy powder, highly soluble in water (58%) and slightly soluble in ethanol (6%). The melting point is 270°C with decomposition (Scientific Literature Review, 1973). Potassium sorbate is both tasteless and odorless (Chichester, 1972).

Potassium sorbate has a long history of use as an antimicrobial food additive. Sorbic acid and its salts have broad-spectrum activity against yeasts and molds, but are less

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